

# Wild Turkey Management in Tennessee



## **CURRENT AND PROJECTED STATUS**

When the European colonization of Tennessee began in the mid 1800's, eastern wild turkeys (*Meleagris gallopavo*) were abundant. Several factors led to the decline of the wild turkey in Tennessee including market hunting, habitat modification and indiscriminate subsistence hunting. Early attempts at restoration involved the release of pen-reared birds into the wild. These birds did not possess the characteristics necessary to survive and successfully reproduce in the wild. No wild flocks were established as a result of these mass releases of pen-reared birds.

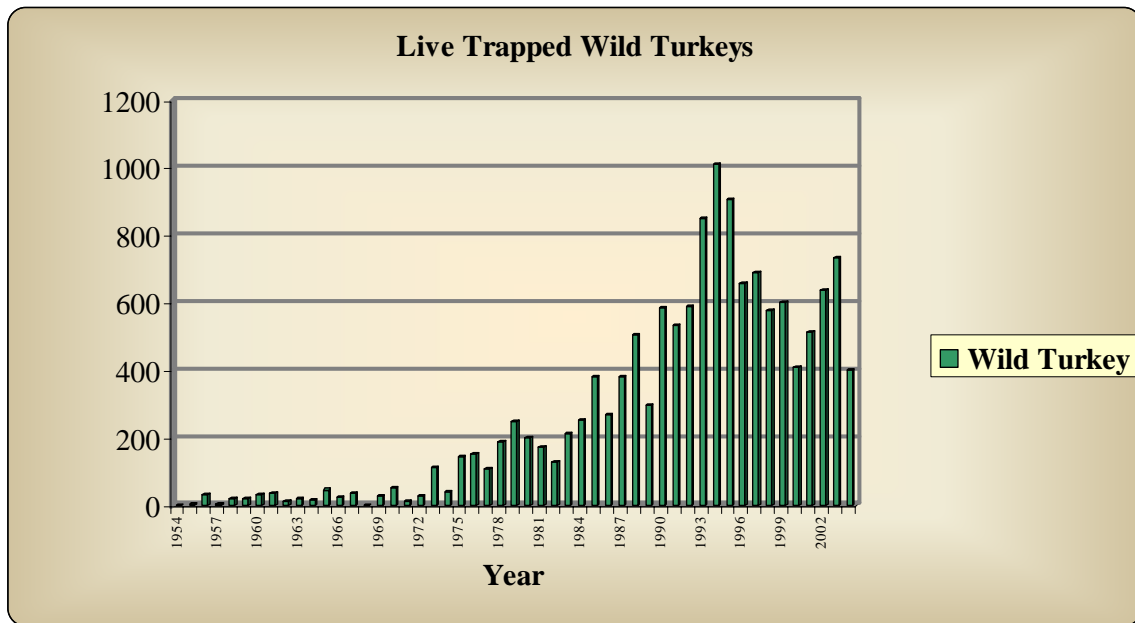
In the early 1950's, before the use of live-trapped wild birds for restoration, Tennessee had few huntable wild flocks. Adverse weather conditions during the peak poult rearing season affecting production on two or three local flocks could drastically reduce a significant portion of the total huntable population resulting in a decline in harvest. In those years when local populations declined, hunters often would not hunt because there were no other huntable flocks within a reasonable driving distance.

In 1951 there were only two counties in the state that harvested wild turkeys, Shelby and Polk. The total turkey harvest was only 14 birds taken in ten days of hunting. A survey of Tennessee's wildlife conducted in 1952 indicated that eastern wild turkeys were present in only 18 of Tennessee's 95 counties. Through intensive restoration efforts including the perfection of cannon netting techniques, wild turkey populations began to increase. Wildlife personnel were able to restore wild turkey populations to many areas which held suitable habitat without birds. The number of counties with wild turkeys present was increased to 58 by 1979; to 72 counties by 1983; and to all 95 counties by

1990. In addition to in state trap and relocation efforts, Tennessee has sent approximately 600 turkeys to Texas, Maryland and Canada in order to re-establish populations.

For the last 30 years the Agency's wild turkey management has focused on completing the restoration of the turkey and managing a newly established population. Great strides have been taken in the restoration of the wild turkey in Tennessee. Since 1951, we have live-trapped and relocated 13,856 wild turkeys (Figure 1). Turkey restoration is now essentially complete but local movement of birds to address landowner depredation complaints and problems of low poult production will continue in all regions throughout this planning period.

Figure 1. Live Trapped Wild Turkeys

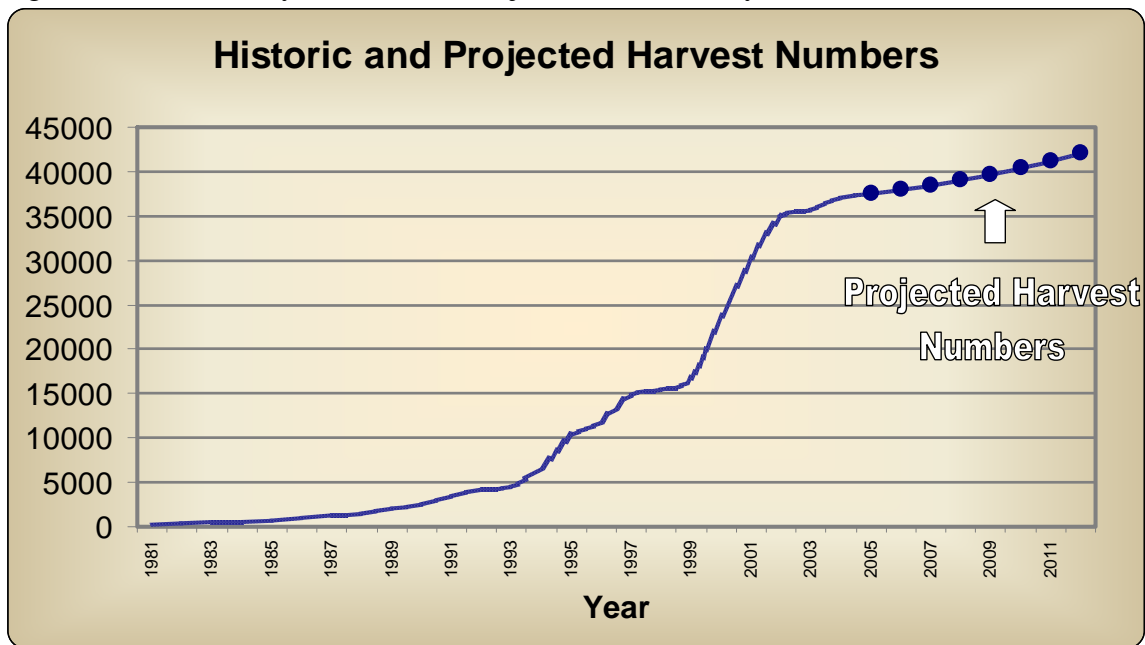


Now that the wild turkey has been restored to Tennessee, our goal is to ensure that a vigorous, self-sustaining population is maintained in all suitable habitats of the state. Turkeys will be managed to best meet the needs and desires of the people of Tennessee. Therefore, it is necessary to develop a long-range plan for managing Tennessee's wild turkey resource; this plan will direct wild turkey management for the anticipated future. This document is intended to develop a vision for the direction of the Agency's turkey management program, including goals and a range of strategies to meet those goals.

Certain parts of the state have experienced tremendous turkey population growth. The popularity of the turkey as a game species versus concern about turkey depredation in some areas of the state have brought about new challenges concerning turkey management. Large numbers of turkeys in certain parts of the state have brought about conflicts and in some instances economic losses. The strategies in this plan seek to resolve these issues while optimizing the worth of the wild turkey.

Wild turkeys are very difficult to census in all Tennessee habitats. Instead of direct counts, wildlife biologists have developed various indices based on mark-recapture and other methodologies. Many studies have shown that harvest or harvest/effort indices are the most accurate indicators of population numbers (Figure 2). Changes of these indices through time and understanding the factors that influence these changes are more important to biologists than a direct count at one point in time.

Figure 2. Wild Turkey Harvest and Projected Wild Turkey Harvest



In recent years, as a result of the wild turkey restoration efforts, Tennessee has a wider distribution of huntable flocks which can absorb declines in some local populations without a significant drop in the total harvest. Since weather conditions vary greatly across the state some flocks exist in areas that will be unaffected by the same storms which could be detrimental to poult survival in other localized flocks. Good production in these areas provides an alternate place for hunters to hunt when local populations are low.

### **PAST, PRESENT, AND FUTURE USE**

From 1951 through 1970 the number of turkey hunters increased and decreased annually in relation to the wild turkey population levels of the few widely scattered, huntable flocks. Harvest numbers, hunter numbers, and total harvest followed turkey population trends. The hunter success rate for turkey hunters during this period averaged only 5 percent. From 1971 through 1993, the number of turkey hunters and the turkey harvest both increased due to the increased restoration efforts establishing more distributed huntable flocks. New harvest records have been set every year for the last twenty-two years and every year except two since 1977. In 2004, a record 33,962 birds were harvested (Figure 2) in 95 counties and the hunter success rate reached 27%. We have re-opened all portions of all 95 counties to turkey hunting since the spring of 2000. Traditionally Region I in west Tennessee has had the highest harvest because wild turkey flocks have been more widely distributed there for a longer period of time. In 1993, Region II in middle Tennessee led in harvest for the first time. Since 1993 Region II has continued to lead all other regions in the spring harvest with Region IV in east Tennessee in second place.

Estimated hunter numbers are shown in Figure 3. One goal of the Wild Turkey Plan will be to achieve 100,000 turkey hunters in the state of Tennessee. Future turkey harvest projections (Figure 2) were made based on harvest trends and hunter success rates from 1980 through 2005. In our projections, we have attempted to increase the spring turkey hunter success rate to 35 % of the hunters harvesting one bird. We would like to maintain this success rate as an average for the next six years.

Turkey hunter numbers continue to increase despite other hunter type numbers decreasing. For the next 15 years, public use of the wild turkey resource will continue to increase. This trend has been evident over the last 15 years.

Figure 3. Estimated Turkey Hunter Numbers

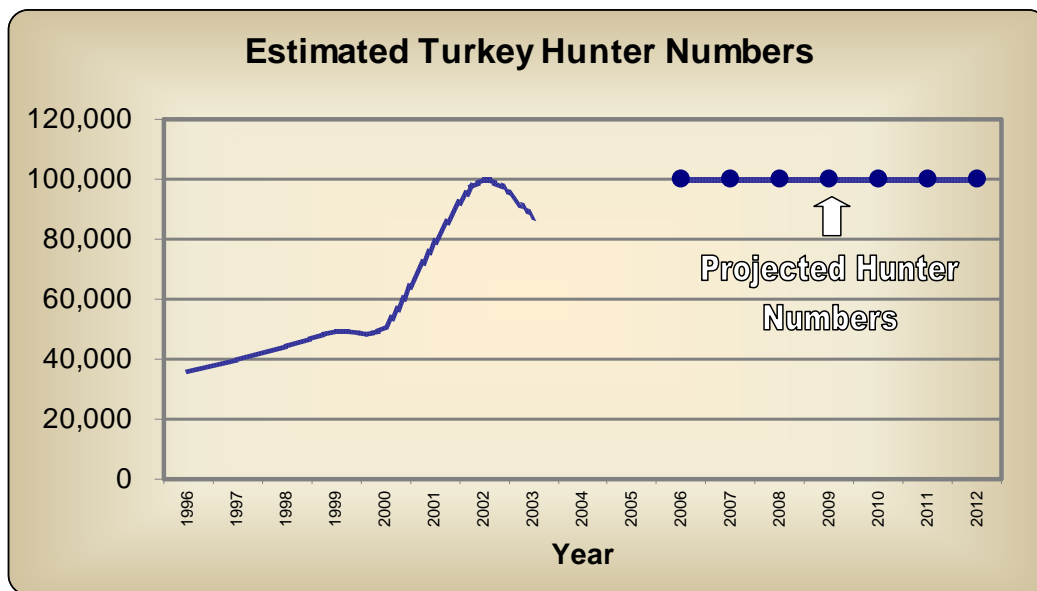


Figure 4. Projected Turkey Hunter Success Rate

